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Stein A. Lundby

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07/11/2005

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **09/697,375**Applicant(s) **LUNDBY ET AL.**Examiner **Ronald Abelson**Art Unit **2666**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,9-18,20-32 and 34-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 2 and 13-17 is/are allowed.
- 6) ☒ Claim(s) 1,3,9-11,18,20-22,24,26-32 and 34-39 is/are rejected.
- 7) ☒ Claim(s) 12,23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2000 and 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 29-31, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felix (US 6,233,231) in view of Hluchyj (US 5,115,429).

Regarding claims 29, 31, 35, Felix teaches receiving a first message on a signaling channel (downlink shared control channel, col. 4 lines 23-28), the first message identifying a first packet of data (Walsh code, col. 4 lines 23-28: note, the Walsh code identifies the first packet of data since each transmission is identified with a unique Walsh code), identifying a target recipient for the first packet of data (remote unit 113 is notified, col. 4 lines 23-28); and receiving the first packet of data on a low delay data channel (fig. 1 box 105, col. 4 lines 22-26) concurrently with receiving the first

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message on the signaling channel (data transmission then begins, col. 4 lines 22-27).

Although Felix teaches Walsh codes and data channels (col. 4 lines 23-28), the reference does not explicitly state that the message identifies the transmission channel or channels for the packet data to be received and the coding used.

Hluchyj teaches a packet identifying the transmission channel or channels (fig. 3, logical channel number, col. 4 lines 49-52) and the coding used (fig. 3, code rate field, col. 4 line 54).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Felix by transmitting channel information and the coding used on the signaling channel. This modification can be performed according to the teachings of Hluchyj. This would improve the system by providing a method for the base station to notify the mobile of the transmission channel or channels for the packet data to be received and the coding used.

Regarding claim 30, decoding the first packet (Felix: data transmission begins, col. 4 lines 27-28).

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3. Claims 1, 3, 9-11, 18, 20-22, 24, 26-28, 32, 34, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar (US 6,757,270) in view of Hluchyj (US 5,115,429).

Regarding claims 1, 9, 18, 21, 22, 26-28, and 36-38, Kumar teaches a wireless communication system (fig. 3) operative for transmission of packet data and low delay data on a plurality of forward link transmission channels.

Kumar teaches a first set of forward link channels within the plurality of transmission channels, the first set of channels being assigned to packet data transmissions and packet data being transmitted in frames (supplemental channels, high speed data messaging , col. 3 lines 16-19).

Kumar teaches a second set of forward link channels within the plurality of transmission channels, the second set of channels being assigned to low delay data transmissions (voice, fundamental channel, col. 3 lines 16-19).

Kumar teaches a forward link signaling channel within the plurality of transmission channels (DCCH, col. 2 lines 16-22, forward-link FCH, forward-link DCCH, col. 5 lines 51-57), the signaling channel being assigned to message transmissions, wherein each message corresponds to packet data (reverse-link channel signals, col. 5 lines 51-57) and identifies a packet

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data target recipient of the packet data (indicates the mobile, col. 5 lines 51-57).

Regarding claims 22 and 26, Kumar teaches a means for decoding the identity of the target recipient (col. 5 lines 57-59). Note, the mobile receives the packet then decreased its power level. Therefore, it had to decode the message.

Regarding claims 26 and 27, the examiner corresponds the memory and processor of the applicant with the decoder of Kumar.

Although Kumar teaches coding (cdma2000, col. 3 lines 16-19), the reference is silent on the signaling channel informing the mobile of the transmission channel or channels for transmission of the packet data and the coding used.

Hluchyj teaches a packet identifying the transmission channel or channels (fig. 3, logical channel number, col. 4 lines 49-52) and the coding used (fig. 3, code rate field, col. 4 line 54).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Kumar by transmitting channel information and the coding used on the signaling channel. This modification can be performed according to the teachings of Hluchyj. This would improve the system by providing a method for the base station to notify the mobile of the

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transmission channel or channels for the packet data to be received and the coding used.

Regarding claims 3 and 34, a first message identifies a subset of the first set of channels (Kumar: mobile's reverse-link channel, col. 5 lines 51-57). Note, the (mobile's reverse-link channel is a subset of the first set of channels. Regarding claim 34, low delay data is one of a first set of channels (Kumar: supplemental channels, high speed data messaging , col. 3 lines 16-19).

Regarding claim 10, Kumar teaches receiving data requests from a plurality of mobiles (fig. 1: see communication between mobiles 112 and base stations 110) and determining a transmission schedule according to the data requests (priority to retransmitted requests, col. 12 lines 57-60).

Regarding claim 11, Kumar teaches assigning a priority level to each of the plurality of mobile units and determining a traffic schedule based on priority (priority to retransmitted requests, col. 12 lines 57-60).

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Regarding claim 20, the message is sent on a forward link from the base station to the mobile (Kumar: DCCH, col. 2 lines 16-22, forward-link FCH, forward-link DCCH, col. 5 lines 51-57).


Regarding claim 24, the parameter comprises coding and modulation used in transmitting the packet. As previously addressed, Hluchyj discusses coding and modulation (fig. 3, code rate field, col. 4 line 54).

Regarding claim 32, means for decoding the message. Decoding previously addressed specifically with respect to claims 22 and 26.

Regarding claim 39, a packet data parameter for reception of packet data (power control bit, col. 5 lines 49-57).

Response to Arguments

4. Applicant's arguments with respect to amended independent claims 1, 9, 18, 21, 22, 26-29, 31, 35-38 have been considered but are moot in view of the new ground(s) of rejection.



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Allowable Subject Matter

5. Claims 2 and 13-17 are allowed.
6. Claim 12, 23, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter.

Regarding claim 2, Kumar teaches a wireless communication system (fig. 3) operative for transmission of packet data and low delay data on a plurality of forward link transmission channels.

Kumar teaches a first set of forward link channels within the plurality of transmission channels, the first set of channels being assigned to packet data transmissions and packet data being transmitted in frames (supplemental channels, high speed data messaging , col. 3 lines 16-19).

Kumar teaches a second set of forward link channels within the plurality of transmission channels, the second set of channels being assigned to low delay data transmissions (voice, fundamental channel, col. 3 lines 16-19).

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Kumar teaches a forward link signaling channel within the plurality of transmission channels (DCCH, col. 2 lines 16-22, forward-link FCH, forward-link DCCH, col. 5 lines 51-57), the signaling channel being assigned to message transmissions, wherein each message corresponds to packet data (reverse-link channel signals, col. 5 lines 51-57) and identifies a packet data target recipient of the packet data (indicates the mobile, col. 5 lines 51-57).

Hluchyj teaches a packet identifying the transmission channel or channels (fig. 3, logical channel number, col. 4 lines 49-52) and the coding used (fig. 3, code rate field, col. 4 line 54).

However, nothing in the prior art of the record teaches nor fairly suggests a first message is transmitted on the signaling channel concurrently with an associated first packet data frame, in combination with all the limitations listed in the claim.

Regarding claim 12, nothing in the prior art of the record teaches or fairly suggests a higher priority is given to a mobile unit experiencing less interference than other of the plurality of mobile units, in combination with all the limitations listed in the claim.

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Regarding claim 23, nothing in the prior art of the record teaches or fairly suggests the parameter is a sequence number of the packet, in combination with all the limitations listed in the claim.

Regarding claim 25, nothing in the prior art of the record teaches or fairly suggests the parameter is a first identifier, wherein the first identifier is stored in a memory storage device corresponding to the coding and modulation, in combination with all the limitations listed in the claim.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ronald Abelson
Examiner
Art Unit 2666


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 7/6/08